



Mobil Polyrex™ EM Series

Mobil Grease , United States

Electric Motor Bearing Grease

Product Description

Super-premium Mobil Polyrex™ EM Series greases are specially formulated for electric-motor bearings. The advanced thickener formulation and proprietary manufacturing techniques provide improved bearing performance and protection for long electric motor life.

Features and Benefits

Mobil Polyrex EM and Mobil Polyrex EM 103 offer the following features and benefits:

| Features                       | Advantages and Potential Benefits                                                                                                                                                                   |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Outstanding grease life        | Outstanding long-life, high-temperature lubrication of ball and roller bearings, particularly in sealed-for-life applications                                                                       |
| Advanced polyurea thickener    | Increased durability versus conventional polyurea greases when subjected to mechanical shear forces                                                                                                 |
| Excellent corrosion resistance | Mobil Polyrex EM and Mobil Polyrex EM 103 provide protection against rust and corrosion.Mobil Polyrex EM provides additional protection under mild salt-water wash conditions versus Polyrex EM 103 |
| Low-noise properties           | Mobil Polyrex EM is suitable for lubrication of ball bearings in many noise-sensitive applications                                                                                                  |

Applications

Mobil Polyrex EM greases are recommended by many major bearing and electric motor manufacturers for long-life lubrication of electric motor ball and roller bearings.

Mobil Polyrex EM 103 is more specifically recommended for applications such as vertically mounted bearings, or very large motors where a stiffer grease consistency may be required by the OEM.

Mobil Polyrex EM greases have been shown to be compatible with a number of ExxonMobil lithium complex greases, as well as competitive electric motor mineral polyurea products, as determined by the methodology of ASTM D6185. For specific questions about grease compatibility, contact your Mobil representative.

Key applications include:

- Electric motor bearings
- Fin fan bearings
- High-temperature pump bearings
- Factory-filled, sealed-for-life ball bearings
- Ball or roller bearings operating at high temperatures where low oil separation is required
- Mobil Polyrex EM for ball or roller bearings operating in noise sensitive environments

Specifications and Approvals

| This product meets or exceeds the requirements of: | MOBIL POLYREX EM |
|----------------------------------------------------|------------------|
| DIN 51825:2004-06 - K 2 P -20                      | X                |

## Properties and Specifications

| Property                                                    | MOBIL POLYREX EM | MOBIL POLYREX EM 103 |
|-------------------------------------------------------------|------------------|----------------------|
| Grade                                                       | NLGI 2           | NLGI 3               |
| Thickener Type                                              | Polyurea         | Polyurea             |
| Color, Visual                                               | Blue             | Blue                 |
| Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D4048     | 1A               | 1A                   |
| Corrosion Preventive Properties, Rating, ASTM D1743         | Pass             | Pass                 |
| Dropping Point, °C, ASTM D2265                              | 260              | 270                  |
| Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266          | 0.48             | 0.6                  |
| Low Temperature Torque, Running, -29 C, g-cm, ASTM D1478    | 405              | 910                  |
| Low Temperature Torque, Starting, -29 C, g-cm, ASTM D1478   | 3630             | 5840                 |
| Lubrication Life @ 177 C, h, ASTM D3336                     | 750+             | 750+                 |
| Oil Separation, 0.25 psi, 24 h @ 25 C, mass%, ASTM D1742    | 0.5              | 0.1                  |
| Penetration, 60X, 0.1 mm, ASTM D217                         | 285              | 250                  |
| Penetration, Change from 60X to 100,000X, 0.1 mm, ASTM D217 | 40               | 40                   |
| SKF Emdor Rust Test, 10% Synthetic Sea Water, ASTM D6138    | 0 , 1            |                      |
| Viscosity @ 100 C, Base Oil, mm <sup>2</sup> /s, ASTM D445  | 12.2             | 12.2                 |
| Viscosity @ 40 C, Base Oil, mm <sup>2</sup> /s, ASTM D445   | 115              | 115                  |
| Viscosity Index, ASTM D2270                                 | 95               | 95                   |
| Water Washout, Loss @ 79 C, wt%, ASTM D1264                 | 1.9              | 0.8                  |

## Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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